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The Advanced Nuclear Production Tax Credit

June 27, 2017

The advanced nuclear production tax credit (PTC) (Internal Revenue Code (IRC) Section 45J) provides a 1.8 cent per kilowatt hour (kWh) tax credit for electricity sold that was produced at qualifying facilities. Criteria for qualifying facilities include that they must use nuclear reactor designs approved by the Nuclear Regulatory Commission after 1993, and must be placed in service by the end of 2020. Qualifying facilities can claim tax credits during the first eight years of production.

There are additional limitations associated with the provision. First, the credit is restricted to 6,000 megawatts (MW) of total electric generating capacity for all qualifying facilities nationwide, with the 6,000 MW allocated by the Internal Revenue Service (IRS). Second, taxpayers can claim no more than $125 million in tax credits per 1,000 MW of the allocated capacity in any single year.

On June 20, 2017, the House passed H.R. 1551, a bill that would modify the credit for production from advanced nuclear power facilities. Specifically, the legislation proposes to (1) provide a reallocation for any unused portion of the 6,000 MW capacity limit; (2) eliminate the 2020 placed-in-service deadline for entities that have received an allocation of unused capacity; and (3) allow public entities to elect to forgo credits, allowing those credits to be transferred to project partners. If the 6,000 MW of capacity is reallocated, reallocations would first go to facilities placed in service before 2021, to the extent that such facilities did not receive an allocation equal to their full nameplate capacity. Any remaining unallocated capacity could then be allocated to facilities placed in service after January 1, 2021, in the order in which such facilities are placed in service. The Joint Committee on Taxation (JCT) has estimated that H.R. 1551 would reduce federal revenues by $16 million over the 2018 through 2027 budget window.

Legislative History and Background

The advanced nuclear PTC was enacted as part of the Energy Policy Act of 2005 (EPACT05; P.L. 109-58). The tax credit was one of several provisions in the act designed to support investment in new nuclear power plants.

When the advanced nuclear PTC was enacted, it was estimated to cost $278 million over the 2005-2016 budget window. When enacted, however, most of the cost associated with this provision, costs in excess of $278 million, would have been expected to occur outside the budget window. Looking at the 10-year budget window upon enactment does not capture costs associated with production occurring after 2016.

Current Tax Expenditure Estimates

Both the JCT and Department of the Treasury provide tax expenditure estimates, or estimates of the forgone revenue, associated with provisions in the coming years. The JCT estimates the credit to be *de*

minimis over the 2016-2020 budget window, meaning that the estimated amount of forgone revenue associated with the provision is less than $50 million over the five-year period. JCT tax expenditure estimates are not currently available beyond 2020. The Treasury's tax expenditure estimates differ from the JCT, both in value and in the time period covered. The Treasury estimates that over the 2017-2026 budget window there will be $3.9 billion in forgone revenue, with revenue losses beginning in 2019.

Development of advanced nuclear production capacity has been slower than was anticipated when EPACT05 was enacted. In 2005, when EPACT05 was enacted, the JCT had estimated that the provision would result in federal revenue losses beginning in 2013. However, current tax expenditure estimates from both the JCT and Treasury project essentially zero revenue losses through at least 2018.

Industry Considerations

Extension of the advanced nuclear PTC could be crucial for the completion of four new commercial advanced reactors currently under construction. The projects, Vogtle units 3 and 4 in Georgia and Summer 2 and 3 in South Carolina, are billions of dollars over budget and years behind schedule. Westinghouse Electric Company had been the lead contractor for the new units, but Westinghouse's bankruptcy filing on March 29, 2017, placed the future of the projects in doubt. Construction has continued on an interim basis while the plants' owners determine whether to complete them. The additional delays caused by the Westinghouse bankruptcy, if the owners decide to continue, are widely expected to push the completion of the new reactors beyond the 2020 deadline to qualify for the advanced nuclear PTC. H.R. 1551 would ensure that the four reactors, if completed, could receive the tax credit. Moreover, the bill would potentially increase the value of the credits to the projects by allowing public and nonprofit entities (such as municipal utilities and electric cooperatives) to transfer credits to other taxable entities or partners involved in the project.

Policy Options

As noted above, in the 115th Congress, the House has passed legislation that would modify the advanced nuclear PTC. The legislation being considered, H.R. 1551, would help ensure that existing allocations are used. The legislation does not, however, provide any additional allocations. Additional allocations could provide an incentive to invest in additional nuclear capacity, beyond what is already under construction. The Energy Information Administration (EIA) projects that retirements of nuclear capacity are expected to exceed capacity additions in the coming years, resulting in a reduction of U.S. nuclear generating capacity.

The existing advanced nuclear PTC is not indexed for inflation. Indexing the credit for inflation (along with the per-reactor annual limit) is another option that could be considered. Should additional allocations be provided, indexing the credit for inflation could address erosion in the real value of the credit that happens over time. The renewable energy PTC (IRC Section 45) includes an inflation adjustment, as do other incentives in the IRC.

There are other policy options, beyond targeted tax incentives, for supporting development of nuclear energy, should Congress make this a policy objective. For example, technology-neutral incentives that provide payments or credits for zero- or low-emissions electricity, or a carbon tax, could support investment in nuclear energy capacity. For further discussion of challenges in the industry and policy options, see CRS Report R44715, *Financial Challenges of Operating Nuclear Power Plants in the United States*, by Phillip Brown and Mark Holt.

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